C1
Cont.

25. The resonant optical modulator of claim 9, wherein the active modulator electrode is linear.

26. The resonant optical modulator of claim 11, wherein the means for providing an electrical modulating signal is linear.

REMARKS

Claims 1-26 are pending. Claims 16-20 have been withdrawn from consideration. Claims 23-26 have been added by this Amendment.

Applicants acknowledge with appreciation the indication that claims 4-6, 13-15 and 22 are considered to contain allowable subject matter. Remaining claims 1-3, 7-12, 21, and 23-26 are also considered allowable for the reasons that follow.

Claims 2, 3, 7-12 and 21 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,787,211 to Gopalakrishnan ("Gopalakrishnan"). Claim 1 is rejected under 35 U.S.C. § 103(a) as being obvious over Gopalakrishnan. These rejections are respectfully traversed.

According to an exemplary embodiment, a resonant optical modulator is provided that accounts for mismatch between the optical modulator and the electrode carrying the optical modulator load. According to one embodiment, this mismatch is accounted for by an impedance matching network integrated within the modulator. For example, Applicants' FIG. 4 illustrates an optical modulator including a modulator electrode 3. A stub-line 6 and a cascade delay line 7 forms an impedance matching network completely integrated with the modulator.

Independent claim 2 recites a resonant optical modulator, comprising an electro-optical substrate, an optical waveguide formed in the substrate and having a variable index of refraction, an active modulator electrode formed on the substrate in relation to the waveguide to effect electro-optical variation of the index of refraction upon application to the electrode of a modulating signal at a frequency around a resonant frequency, and an interface port formed on the substrate and providing the modulating signal to the electrode from a signal source, the signal